

**The Regional Interoperability Advisory Board  
presents the:**

**Interim Report to  
DAS-Division of Communications**

**A regional approach to achieve statewide  
interoperable communications.**

**March 1, 2006**

## **Executive Summary**

The Regional Interoperability Advisory Board was established by LB 343 in the 2005 legislative session. The board's mission is to provide advice to the Department of Administrative Services- Division of Communications on the formation, expansion and enhancement of regional communications systems to achieve interoperability.

The board developed four goals and subsequent recommendations. The board requested that this report be distributed to the State Homeland Security Policy Group.

- 1) Assist in the formalization of the interoperable communications regions.
  - a. The State formalizes the regional communications areas; both local and state regions must engage in contractual agreements.
  - b. The State establishes and funds a statewide interoperability committee to support, plan and coordinate regional interoperability.
- 2) Advocate ongoing assessment of communications capabilities, resource sharing and strategies.
  - a. The State must designate an agency with the responsibility for serving as a repository for information and directing the on-going activity relating to regional interoperable communications to include: designating a communications leader within each formalized area, striving to conduct an assessment on communications assets and resources, maintain an inventory of assets and resources, sponsor an annual interoperability conference and maintain a statewide mutual aid plan.
- 3) Provide guidance to integrate state public safety agencies as a peer region into the network of statewide communications capabilities.
  - a. Any requirement that is levied against the formalized areas, the State must also comply with.
  - b. The State must adopt and fund a modern two-way repeated radio system with digital capability.
- 4) Promote an on-going understanding, coordination and allocation of communications resources available to respond to a disaster.
  - a. The State must develop a plan template which requires the formalized areas to specify their response structures and require written plans
  - b. The State must appoint a state communications leader as specified in the National Incident Management System (NIMS) to plan, coordinate and designate regional interoperability communications assets and training and exercising

## **Introduction**

LB 343 created the Regional Interoperability Advisory Board (RIAB) in the 2005 legislative session. LB 343 asserted the mission of the board, "The board shall provide advice to the division regarding the formation, expansion and enhancement of regional communications systems to achieve interoperability." The bill further stated, "Regional approaches to communications planning and preparedness and the adoption of regional response structures should be used to develop and sustain interoperable communications." Hence, all activities and tasks that the board performs are based on the regional approach to achieve interoperable communications.

Members on the board are nominated by the governor and include representation from both local jurisdictions and state agencies. Each member's term is two years from date of appointment. Those serving on the board are:

- Sgt. Todd Beam, Lincoln Police Department
- Timothy Loewenstein, Buffalo County Supervisor
- Mark Conrey, Douglas County Communications Director
- Bob Brower, Scotts Bluff Communications Director
- Mike Jeffres, Department of Administrative Services-Division of Communications (DOC) Wireless Manager
- Al Berndt, Nebraska Emergency Management Agency (NEMA) Assistant Director
- Ted Blume, Nebraska Game and Parks Commission (NGPC) Law Enforcement Administrator
- Capt. Tom Parker, Nebraska State Patrol (NSP)

Since its formation, the board has undergone specific tasks and activities. The board advises the DOC on using regions as building blocks to create a network of communications systems. This interim report defines the board's four goals and provides recommendations on how to achieve these goals. Each goal guides and suggests solutions on operations and regional communications systems to the State, state public safety agencies and local jurisdictions.

The board recognizes that for statewide interoperability to be achieved using the regional approach, the State must take ownership of these recommendations and the process. The board further recommends that this report be distributed to the State Homeland Security Policy Group.

The goals are:

- 1) Assist in the formalization of the interoperable communications regions.
- 2) Advocate ongoing assessment of communications capabilities, resource sharing and strategies.
- 3) Provide guidance to integrate state public safety agencies as a peer region into the network of statewide communications capabilities.
- 4) Promote an on-going understanding, coordination and allocation of communications resources available to respond to a disaster.

**1) Assist in the formalization of the interoperable communications regions.**

Interoperability by its very nature implies that people not accustomed to working together will be asked to by the circumstances surrounding an event. No matter how much we wish that tragic events did not occur, disasters require that adjoining or distant jurisdictions share their assets to the affected area. With little or no planning in place, these efforts meet with frustration and dismay. Questions about what to do, how to do it and when to do it are asked, but often at the wrong time. During an event, these decisions must have already been made, and only require implementation. With lives and property at stake there is not time to sit at the negotiation table and resolve these complex issues.

The success of any response lies in the preparation and planning in advance. Communications interoperability falls squarely in this requirement. Many would say that this issue is technology oriented but observation and experience tell us that interoperability is more governance oriented than technology. In fact, even before the governance is in place, any group of people desiring to work together must recognize the “culture of chunks.” Chunks, or groups of people or organizations that wish to work together, differ from the historical approach of cities, counties and states. In each case for too many years, the philosophy practiced has been to be self-sufficient and without the need for neighborly help.

Tragic events have driven this “culture of chunks.” The Oklahoma City bombing brought together people and organizations that, under normal circumstances, worked well when an event was solely within the scope of an individual agency. But this event took that requirement to a new level. Casualties and destruction was beyond what had been foreseen or planned for at that time in American history. Agencies were asked to work together without planning or preparation for such a large-scale event. Columbine then followed and again agencies were called upon to work together. However, these agencies found themselves without a plan or direction at a moment’s notice of tragedy. With a third event in American history “9/11,” we see a diverse picture. At the scene of the Pentagon, we find numerous agencies working together, although not perfectly, but with an understanding of purpose and direction. The jurisdictions surrounding the Pentagon had already discussed and planned for an event (with no imagination of the extent to which their planning would be put in motion) in which their assets would be needed by a neighbor. “Chunks are good!” Conversely, in New York City, the individual agencies were overwhelmed. Those willing to give assets to the affected area were hampered by the lack of preplanning and direction for such a need.

Learning from these examples, those overseeing the responding and supporting agencies recognized that no one agency can have all the tools, people and resources needed to address a major tragedy. Budget constraints as well as good management skills dictate that the most effective way to be prepared is for a group to collectively pledge their assets to the “brother” in need at a level that will allow for continued coverage of their home jurisdiction. This must be done well before any such event occurs, with governance and guidelines clearly documented. Jurisdictional boundaries no longer are moats encompassing a self-sufficient geographic region but now are wide portals

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accommodating the giving and receiving of assets as necessary to assist our neighbor in need. “Chunks are good!”

### **Why plan?**

Watching a six-year-old play her first soccer game is not only enjoyable but a great lesson in the need for proper planning and governance. Taking to the field of play, these young ones are at the height of excitement. Competing before their families and friends is a new experience for each of them. The coach has talked with them about individual responsibilities and the need for each member of the team to handle their assigned area. They have spent many hours learning and practicing the coach’s plan for the game. But moments after they take to the field and the game begins, those concepts are lost in desire and enthusiasm. All those feet surround the ball – trying to move it from one end of the field to the other. Maybe best referred to as “systemized chaos.” Fortunately for the teams, they both approach the challenge with the same effort. But clearly the organizational plan is in disarray and the effectiveness of the individual members is lost. A youthful athletic event can afford such a digression from planning but the response to a life-threatening event does not have such luxury. Time becomes the number one enemy during response and only by planning and a clear understanding of governance can all the resources be used to the maximum of their affect.

### **Planning with whom?**

Planning must first begin by looking outside the walls of your jurisdiction. Without exception, you will find synergy with jurisdictions and individuals around you. Extend an invitation to these “trusted partners” to sit at the table and discuss this concept called “interoperability.” What about this idea of “chunks are good?” Both of these topics will result in but one conclusion. Working together brings a stronger and more diverse ability to respond to the needs of the constituents and guests of our jurisdiction. This simple beginning will birth a culture that will look beyond your first field of vision and draw others into this new endeavor. Here are some sample topics for discussion:

- What radio assets do you have and how do we talk together today?
- What vulnerability do you have in your jurisdiction and what assets are available from this new group to help you mitigate damage from an event?
- What makes ‘good common sense’ in working together? In many cases the most simple of plans results in the most awesome results.

The next step beyond these discussions is to commit to these goals in writing. Here are some examples of goals as determined by the Central Nebraska Regional for Interoperability (CNRI) group:

- Capability to directly communicate with member county, city and state units assisting local jurisdiction and directly communicate with local units when they are assisting another member county.

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- Capability to maintain radio contact with officers during pursuits and prisoner transports.
- Capability to monitor pursuits approaching local jurisdiction.
- Capability to maintain radio contact with police, fire, ambulance and emergency management personnel while outside local jurisdiction.
- Capability to broadcast area-wide messages and alerts.

These goals are just examples; they worked for the CNRI group and came directly from the discussions as recommended and outlined above. Yours may be similar or different; the important factor to remember here is to identify your area's goals, then write them down. Discuss what you have and arrive at a consensus that these goals properly identify your needs and direction. The next steps will be built upon these items.

### **What will you become?**

Now you must look at formalizing your group. You have identified the members of your new region and the goals that the region feels are a priority. Now let's make it real. Two documents can be used for this purpose and will not only create and formalize the region but establish the guidelines for working together.

1) The Inter-Local agreement. This document will describe the jurisdictional parties whom wish to work together and the broad scope of their interaction. This document normally includes such issues as:

- Member jurisdictions
- Financial responsibilities
- Areas of "command and control"

The inter-local agreement becomes a binding contract creating the interoperable assembly as an ongoing agency establishing the rights and privileges of each party. It might be said that this document implies a measure of comfort knowing that each party has committed in a formal manner to the agreement. A key element to success is that all parties to the inter-local agreement are fully educated on its intent. As "governance" is the number one hurdle to these regions, education is the number one solution. With goals and responsibilities documented, misunderstandings become few if any, and actual work can become the norm each day. All of the public safety community, county boards and city councils involved in the area wanting to work together must have first-hand knowledge of the inter-local agreement and subsequently approve it. With this buy-in the new group is strong and assistance is delivered in the best manner needed at the time of planning, with no surprises.

2) Memorandum of Understanding (MOU). MOUs can be used for the more detailed or onsite arrangements supporting the inter-local. MOUs allow for flexibility to define in more detail the items identified in the inter-local agreement. Under the broad constraints of the inter-local the MOU can allow for quick changes in procedures as required.

Both of these documents are evolutionary in their life scope. Changing needs and personnel require that these documents be updated to reflect the best utilization of the resources brought to the table. The documents should specify a regular and timely review of their language. Preparation and planning through the steps of discussion and documentation will result in the maximum affect of all first responders and their individual jurisdictions.

### **How do we work together?**

There is little question that the priority of communicating together is top on the list – now that you have the above completed the above steps. But the members of your new area may use different communications platforms, and a solution to bring them together will be the challenge. You have already decided to do this, so now we must answer the question of “how?” This was the case with CNRI. Radio systems ranging from low band to UHF existed, but the commitment to work together overcame what loomed as a formidable obstacle. The first and most difficult step was the commitment to become a “chunk,” or cooperative area – the commitment to say “We will work together.” Remember “interoperability” is driven not by technology but by governance. And “governance” is “people.” CNRI recognized that it could not justify a “forklift” approach to bringing its members together. Radio systems in existence had not reached their “life cycle” and could not be abandoned. It was only at this point that CNRI began to look at a project that was “technology” in nature. All the work and preparation up to this point centered on “governance.” With that done, finding a solution was no longer an obstacle.

### **Goal 1 Recommendations**

The board has adopted the following recommendations to assist in the formalization of the interoperable communications regions:

- 1) The State formalizes the regional communications areas and publishes them in draft form by May 1, 2006. The counties have 90 days to concur with their placement in a region or demonstrate the need for a boundary change. Final regional designations by October 1, 2006.
- 2) The regions as published on October 1, 2006 must formalize and execute their inter-local agreements by December 31, 2006.
- 3) The state public safety agencies become signature participants in the respective regional efforts by December 31, 2006.
- 4) The State formally establishes and funds a statewide interoperability committee. Each formalized area will have membership on this committee. Responsibilities of the committee shall include, but not be limited to:
  - a) assist the designated agency to arbitrate and set priorities for ongoing communications development and projects
  - b) provide planning documents and examples of inter-local agreements and MOUs
  - c) review proposed regional projects
  - d) coordinate funding priorities
  - e) provide assistance to regions and recommend assistance mechanisms.

**2) Advocate ongoing assessment of communications capabilities, resource sharing and strategies.**

The current state of wireless voice communications in public safety has been impacted by many factors. Our thinking has been shaped by incidents such as the terrorist attacks of 9/11, local events including devastating tornados, multi-jurisdictional pursuits, escaped prisoners and simple routine law enforcement. Buffeted by the efforts of past committees, boards and elected officials, we have arrived at where we are today. All of these and many other factors have combined to steer how we view and practice public safety communications. Fueled by the infusion of homeland security funding, change has been significant.

We have learned these lessons:

- It is very important to realize that public safety communications is an on-going endeavor. The needs of providers change as demographics, trends and practices change. Technology evolves, as existing equipment ages. In the world today, new threats will emerge. Proven successful agencies are the ones that are constantly assessing their existing assets, and moving forward in a deliberate and persistent manner.
- In reality, successful long-term, public safety communications is a culture more so than an actual technology.

During discussions, the board has examined many questions:

- How do we maximize and consolidate the progress that has been accomplished?
- How do we foster a communications culture that looks beyond city limits and county borders, and engenders cooperation and resource sharing?
- How do we create a climate of on-going exchange of information, including the kind of “what if” discussions that allow agencies to interoperate and assist each other, both during normal daily operations and during critical incidents?
- How do we prevent the return of looking at radio communications as simply budgeting for a few replacement radios?

**Goal 2 Recommendations**

The board has adopted the following recommendations to advocate an ongoing assessment of communications capabilities, resource sharing and strategies:

- 1) The State must designate an agency with the responsibility for serving as a repository for information and directing the on-going activity relating to regional interoperable communications. The designated agency will establish structures and relationships with the regional communications leaders to serve as a focal point and conduit for regional communications activity. These activities could include:



- a) The State requires the region to designate a communications leader within each formalized area who is responsible for the tasks specified by the Department of Homeland Security (DHS). The regional communications leader is responsible for the basic inventory of communications assets and resources that are available to respond to a disaster and reconstitute communications as needed.
- b) The State will strive to conduct a detailed assessment of communications resources in every formalized area to determine communications capabilities and challenges. The results of the assessment will be shared with the regional communications leaders. The State requires the regional communications inventory be provided to the designated agency.
- c) The State, through the designated agency, will sponsor an annual interoperability conference where best practices are highlighted and information sharing is facilitated.
- d) The State will utilize or develop an assessment tool that formalized areas can use to document their assets, capabilities and the current status of their communications infrastructure; focusing on daily operation as well as preparedness for disaster. This aspect needs to have both the perspective of being the recipient as well as the donor of outside aid.
- e) The designated agency must maintain copies of any inter-local agreement or MOU used in the formalization of a region. These documents will be used to support Homeland Security grant requests.
- f) The State will require the DOC to develop and maintain a statewide mutual aid frequency plan.

**3) Provide guidance to integrate state public safety agencies as a peer region into the network of statewide communications capabilities.**

Two realities have emerged. The first is that regions that tended to naturally exist have coalesced, and in many cases, have developed significantly enhanced communications capabilities. Secondly, state public safety agencies, NSP, NGPC and the State Fire Marshal's Office (SFM) have not evolved forward, and in many ways, are now more isolated than they were before. For example, in Lincoln, NSP routinely is called upon to participate in events ranging from University of Nebraska football and the State Fair to contentious rallies at the State Capitol. Due to the fact that the NSP lacks a modern two-way radio system, the solution has been to continually loan the NSP radios to operate on the City of Lincoln's radio system. This is a reoccurring theme that plays out across the state. Quite literally, the NSP lacks the "operable" capability needed to ever hope to be "interoperable" with other agencies, let alone to adequately provide for its own needs. This communications divide will only increase as the individual regions and localities further improve their capabilities.

In examining this issue, the board has concluded that a fundamental change in thought process needs to occur. It is imperative that the state public safety agencies be viewed as a peer region, no different than any of the other regions that exist. By utilizing this outlook, it is possible to examine what is needed to equip the state public safety agencies to respond as a true peer with their local partners to the events that confront us.

**Goal 3 Recommendations**

The board has adopted the following recommendations to guide the integration of state public safety agencies as a peer region into the network of statewide communications capabilities:

- 1) Any requirement that is levied against the formalized areas, the State must also comply with.
- 2) The State must adopt and fund a modern two-way repeated radio system with digital capability.

**4) Promote an on-going understanding, coordination and allocation of communications resources available to respond to a disaster.**

It is hoped that this document, up to this point, has provided you with various ways that interoperability can be achieved. The real task now is deciding what level of interoperability is needed, how you are going to achieve it, how you are going to maintain it and how you are going to use it. Since the advent of the Department of Homeland Security (DHS), the responsibility to implement programs has been placed on the state. Every state must determine how they are going to support and manage the requirements of DHS to enhance the protection provided to its citizens and to maintain a capability to respond to terrorism and disasters.

The ability to provide command and control of responding resources at a disaster event has become the number one priority for DHS. This is evidenced by requirements to have everyone trained in the National Incident Management System (NIMS). Also, Incident Managers must ensure that effective, interoperable communications processes, procedures and systems exist across all agencies and jurisdictions. This became the priority as a result of 9/11. The response to the towers was not controlled and there was no staging area established for the coordination and distribution of resources. The result was the loss of life and resources.

As a result of this loss, DHS is developing a list of tasks that will help every community identify what may be required when called upon to respond to a disaster (reference the US Department of Homeland Security Universal Task List). Every jurisdiction must establish plans and procedures for coordinating, operating, managing and integrating outside entities who may respond to help.

At first blush, you may conclude that interoperability requires that public safety and public service agencies be able to talk directly with each other using the same radio system. However, as the State has discovered on three different attempts in the last fifteen years, building a single radio system shared by all public safety and service providers is fiscally not feasible. Building on the fiscal lessons learned, it did not take long to conclude that even a region may be too large an area for a single system. But who makes that decision?

**Local Needs Drive Interoperability**

The needs of the local communities will dictate how important it is to attain the ability to share information and ensure clear communications between authorized users at any time, across disparate geographic locations, networks and technology when the need arises. Moreover, technology is not the key. Technology does not drive the solution - it is the needs of the local communities to respond to an emergency or disaster. The plan is the key. The regions have to determine what is needed to respond, who is going to respond, how they are going to respond, where they are going to respond and how everyone will integrate into a unified approach to an emergency or a disaster. To be successful in achieving interoperability, the regions must know what interoperability is.

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Interoperability cannot stay an ambiguous and controversial term. The regions must define interoperability for them. More importantly, regions must know what “done” looks like. This allows for goals to be set, determines how to achieve these goals and maintains the ability to measure progress in relation to these goals.

## **The Plan**

Collaboration on a regional basis to leverage expertise, share specialized assets, enhance capacity and interoperate cohesively and effectively is a necessity. Clear plans for responding to natural disasters, disease outbreaks or terrorist attacks must be in place in order to promote an on-going understanding, coordination and allocation of communications resources. The board recommends the below steps to ensure a comprehensive plan:

- Evaluate if your jurisdiction is partnered with the “right” region
- Identify operational requirements
- Identify threats and risks
- Identify resources, resource shortfalls and resource sharing possibilities
- Identify roles, including establishing a communications leader/planner for the region
- Consider capabilities and resources from other regions, State and Federal level
- Develop agreements between entities
- Collaborate plans with surrounding jurisdictions and the State
- Consider all entities when developing plan (law enforcement, fire, emergency management, NSP, MOU departments, public works, roads/highway department, health departments, hospitals, Federal agencies, etc). A matrix allows for easy identification in recognizing who can talk to who and where the “holes” are located
- Develop policies and procedures

After your plan has been developed, technology provides a further means to achieve interoperable communications. However, the technology may not always be in place or available when the need arises. The communications leader/planner must have some other options when there are not any shared channels or frequencies that can be used.

Interoperable communications possibilities include:

- Swap radios with appropriate entities
- Establish a radio cache to be assigned to the region
- Use fixed site gateways, which normally are found at the dispatch console and have the capability of patching disparate radio frequencies as long as the audio source is available at the gateway
- Use mobile gateways, such as the one provided by the Nebraska National Guard’s 72<sup>nd</sup> Civil Support Team

#### **Goal 4 Recommendations**

The board has adopted the following recommendations to promote an on-going understanding, coordination and allocation of communications resources available to respond to a disaster:

- 1) The State develops a plan template which requires the regions to specify their response structures.
- 2) The State requires written plans to address coordinated regional response to specified acts of terrorism and specified disasters.
- 3) The State must appoint a state communications leader as specified in the National Incident Management System (NIMS) to plan, coordinate and designate regional interoperability communications assets.
- 4) The State's designated communications leader is responsible for coordinating the training and exercising of regional communications leaders and their assets.